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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/713,255	11/17/2003	Takahiko Fujiwara	02886.0086	1739
22852	7590	10/06/2006	EXAMINER	
FINNEGAN, HENDERSON, FARABOW, GARRETT & DUNNER LLP 901 NEW YORK AVENUE, NW WASHINGTON, DC 20001-4413			HANDAL, KAITY V	
			ART UNIT	PAPER NUMBER
			1764	

DATE MAILED: 10/06/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/713,255

Applicant(s)

FUJIWARA, TAKAHIKO

Examiner

Kaity Handal

Art Unit

1764

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☐ Claim(s) \_\_\_\_ is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |  |
|--|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>6/20/06, 11/17/03</u> . | 6) <input type="checkbox"/> Other: ____  |

## DETAILED ACTION

### *Specification*

Applicant is reminded of the proper content of an abstract of the disclosure.

A patent abstract is a concise statement of the technical disclosure of the patent and should include that which is new in the art to which the invention pertains. If the patent is of a basic nature, the entire technical disclosure may be new in the art, and the abstract should be directed to the entire disclosure. If the patent is in the nature of an improvement in an old apparatus, process, product, or composition, the abstract should include the technical disclosure of the improvement. In certain patents, particularly those for compounds and compositions, wherein the process for making and/or the use thereof are not obvious, the abstract should set forth a process for making and/or use thereof. If the new technical disclosure involves modifications or alternatives, the abstract should mention by way of example the preferred modification or alternative.

The abstract should not refer to purported merits or speculative applications of the invention and should not compare the invention with the prior art.

Where applicable, the abstract should include the following:

- (1) if a machine or apparatus, its organization and operation;
- (2) if an article, its method of making;
- (3) if a chemical compound, its identity and use;
- (4) if a mixture, its ingredients;
- (5) if a process, the steps.

Extensive mechanical and design details of apparatus should not be given.

### ***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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2. Claims 1-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kanesaka et al. (US 5,804,148) in view of Toyoda (US 5,591,413).

With respect to claim 1, Kanesaka teaches an apparatus for purifying exhaust gases (fig. 1), comprising: an adsorption-purifying catalyst including: an HC adsorbent (3), and an oxidizing catalyst (4) (col. 3, lines 64-65); a three-way catalyst (5) disposed on an upstream side of the flow of exhaust gases with respect to the HC adsorption-purifying catalyst (3) (as illustrated).

Kanesaka fails to show a three-way catalyst wherein a noble metal is loaded higher on a high loading portion disposed on an upstream part of the three-way catalyst than on an ordinary portion of the three-way catalyst. Toyoda teaches a metal carrier for a catalytic converter (fig. 2A) wherein a three-way catalyst (12, 11, 12) comprised of a noble metal/precious metal (col. 1, lines 30-34) loaded higher on a high loading portion (11) (loaded higher due to having a higher concentration of air passages in portion (11) than in portion (12) as illustrated in fig. 2B (col. 2, lines 24-34) and also due to portion (11) being longer than portion (12)) disposed on an upstream part of the three-way catalyst/precious metal (12, 11, 12) than on an ordinary portion (12) of the three-way catalyst/precious metal (12, 11, 12) in order to reduce the effect due to heat strain (col. 2, lines 61-65).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to include a three-way catalyst wherein a noble metal is loaded higher on a high loading portion disposed on an upstream part of the three-way

catalyst than on an ordinary portion of the three-way catalyst in Kanesaka's apparatus, as taught by Toyoda, in order to reduce the effect due to heat strain.

With respect to claim 2, Toyoda further teaches wherein a loading amount the high loading portion (12) of the three-way catalyst (12, 11, 12) is twice or more of a loading amount of the ordinary portion (11) of the three-way catalyst (12, 11, 12) (as illustrated in figure 2A).

With respect to claim 3, Toyoda further teaches wherein the high loading portion (11) of the three-way catalyst (12, 11, 12) formed within a range of  $1/2$  of an overall length of the three-way catalyst (12, 11, 12) ranging from an upstream end of the three-way catalyst (12, 11, 12) (as illustrated).

With respect to claim 4, Kanesaka further teaches wherein HC adsorption-purifying catalyst includes the HC adsorbent and the oxidizing catalyst with a proportion of the HC adsorbent with respect the oxidizing catalyst from 5 : 1 to 2 : 3 by volume/(1 : 1) (as illustrated in fig. 1).

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kaity Handal whose telephone number is (571) 272-8520. The examiner can normally be reached on M-F 8-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenn Caldarola can be reached on (571) 272-1444. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

KH  


9/12/2006

  
ALEXA DOROSHENK NECKEL  
PRIMARY EXAMINER